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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/517,018	03/02/2000	Hideaki Okamura	450100-02393	4073

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EXAMINER
TRUONG, LECHI

ART UNIT	PAPER NUMBER
2126	

DATE MAILED: 07/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.	Applicant(s)
· Office Action Summary		09/517,018	OKAMURA, HIDEAKI
		Examiner	Art Unit
		LeChi Truong	2151

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>03/02/2003</u>.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-38</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-38</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1.   This is in response to the amended field 04/21/03. Applicant have amended

claims 22 and 29, and added new claims 37 and 38.

Claim Rejections - 35 USC § 103

2.   Claims **1-2, 11-12, 21** are rejected under 35 U.S.C. 103(a) as being unpatentable

over Ryu et al (US Patent 5,572,733) in view of Wold et al (US Patent 5,386,568).

As to claim 1, Ryu teaches data processing (data processing, col 4, ln 22-35), an

object oriented operating system (the method, class, col 8, ln 44-51/ function, class, col

10, ln 25-45), a plurality objects (primitive objects A, B, col 6, ln 1-67/the exiting

objects, col 9, ln 12-21/ the object parts, col 10, ln 38-45), an object (class, col 6, ln 1-

67/one new object, col 10, ln 10-20), a combining request message (the new process

request, col 6, ln 1-67/a command link, col 10, ln 10-20), the predetermined object as a

component object (the object/ the primitive object/ class, col 6, ln 1-67/ col 10, ln 10-20),

a table data structure (the status table 414, col 6, ln 1-67/the command link table, col 10,

ln 10-20/ second file, col 18, ln 15-30), a composite object(a composite object, col 9, ln

12-30/ composite object part, col 10, ln 38-65/ col 6, ln 1-67), registering (a part register

function is a function of registering the object parts in the parts attribute file 205, col 38-

65), a message processing function (a request to use the primitive object, col 6, ln 1-13/

the new process request , col 6, ln 1-67), a relationship(relationship, col 6, ln 52-67/ col

18, ln 20-60/ fig. 13A, 13 B), the message interface(the class available and constants,

instances corresponding to each of the classes, col 6, ln 29-67/ the method indicated by

the class, col 10, ln 30-67/ plurality of methods, col 14, ln 1-21). Ryu's reference teaches

a function of adding modifying and deleting the attribute related to the formation of the

class. Those register functions are a function of registering the object parts of class which has the relationship with the object commands. Mover over, the Fig 13A, 13 B clearly explain the relationship between the function and interface in the data structure.

Ryu does not explicit teach the term the data structure for component object, message interface. However, Wold teaches a table, input data structure, input/ output (col 2, ln 40-68).

It would have been obvious to apply the teaching of Wold to Ryu in order to store or define location for necessary information to link between software objects.

As to claim 2, Ryu teaches a name of said component, a number of message interface (the names of the object parts, col 10, ln 57-64), a processing function (a schema function, col 10, ln 25-32/ function, col 10, ln 58-64).

As to claim 11, see the rejection of claim 1.

As to claim 12, see the rejection of claim 2.

As to claim 21, see the rejection of claim 1.

3.   Claims **3-10, 13-20, 26-28, 33-35** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ryu et al (US Patent 5,572,733) in view of Wold et al (US Patent 5,386,568) and further in view Kavner (US Patent 6,430,607 B1)

As to claim 3, Ryu teaches a specific execution (execution process data 214, Fig 10/ col 10, ln 1-5/ col 12, ln 5-13), executes message processing (a transmitter/ receiver 219, fig 10/ col 12, ln 5-13).

Ryu does not teach a thread for execution processing. However, Kavner teaches the same client thread executing on the clients process 102/thread of execution (col 4, ln 5-10).

It would have been obvious to apply the teaching of Kavner to Ryu in order to transfer message between the plurarity client applications on the client processor 102 and server applications using a shared thread and to reduce the complex of a multi-thread remote procedure call system and a high level of expertise about the operational details of the operating system.

As to claim 4, Ryu teaches a request (a command link, col 10, ln 10-20), a predetermined component object (new object/ the object, col 10, ln 10-20), composite object (composite object part, col 10, ln 38-64), register X (the combination of the meta data 202, real data 203, col 10, 10-20/ function of registering the object part, col 10, ln 58-64), table data structure (a command link table, col 10, ln 10-20).

Ryu does not explicit teach X as the data structure for component object. However, Wold teaches a table, input data structure (col 2, ln 40-68).

It would have been obvious to apply the teaching of Wold to Ryu in order to store or define location for necessary information to link between software objects.

As to claim 5, Ryu teaches checking (the object management unit 220/ col 12, ln 54-67 to col 13, ln 1-10/ the hyper process part 222, col 10, ln 25-45), the sequential execution relation (the processing sequence, col 12, ln 54-67 to col 13, ln 1-10), component objects (the plurality of object parts (col 12, ln 54-67 to col 13, ln 1-10).

As to claim 6, Ryu teaches time (time movements, col 8, ln 1-3), the component object (sessions, col 8, ln 1-3), in parallel/ processing of another message (parallel processing, col 8, ln 1-3).

As to claim 7, see the rejection of claim 6.

As to claim 8, Ryu teaches a request (" part combine" function, col 10, ln 25-45), composite object (composite object part, col 25-45), deleting registration (delete the schema related, col 10, ln 25-45).

As to claim 9, Ryu teaches message transimitted (message passing, col 3, ln 1-5), non-composite object (a primitive object, col 3, ln 11-65), component object (the objects, col 3, ln 1-18).

As to claim 10, Ryu does not explicit teach does not switching over an execution thread. However, Kavner teach a single thread (col 4, ln 5-10).

It would have been obvious to apply the teaching of Kavner to Ryu in order to prevent the switch over an execution thread because there is a single thread for executing multiple requests.

As to claim 13, see the rejection of claim 3.

As to claim 14, see the rejection of claim 4.

As to claim 15, see the rejection of claim 5.

As to claim 16, see the rejection of claim 6.

As to claim 17, see the rejection of claim7.

As to claim 18, see the rejection of claim 8.

As to claim 19, see the rejection of claim 9.

As to claim 20, see the rejection of claim 10.

As to the rejection of claim 26, see the rejection of claim 6.

As to the rejection of claim 27, see the rejection of claim 10.

As to the rejection of claim 28, see the rejection of claim 15.

As to the rejection of claim 33, see the rejection of claim 26.

As to the rejection of claim 34, see the rejection of claim 27.

As to the rejection of claim 35, see the rejection of claim 28.

4.   Claims **22 – 25, 29-32, 36** are rejected under 35 U.S.C. 103(a) as being

unpatentable over Ryu et al (US Patent 5,572,733) in view Kavner (US Patent 6,430,607

B1)

As to claim 22, Ryu teaches object (object, col 10, ln 10-20), message (message,

col 3, ln 1-5), a composite object (composite object part, col 10, ln 10-45/ col 3, ln 12-

65), one or more composite objects (the objects, col 3, ln 12-14/ one new object, col 10,

ln 10-20), a standard object (the primitive object, col 3, ln 12-65), identifier

(identification (ID), col 5, ln 65-67 to col 6, ln 1-19).

Ryu does not teach a thread for execution processing. However, Kavner teaches

the same client thread executing on the clients process 102/thread of execution (col 4, ln

5-10).

It would have been obvious to apply the teaching of Kavner to Ryu in order to

transfer message between the plurarity client applications on the client processor 102 and

server applications using a shared thread and to reduce the complex of a multi-thread

remote procedure call system and a high level of expertise about the operational details of

the operating system.

As to claim 23, Ryu teaches message (a command link, col 10, ln 10-20),

predetermined object (one new object, col 10, ln 10-20), another object (the object parts,

col 10, ln 3-45), a name of object (the names, col 10, ln 10-65/ col 11, ln 60-65), an

initializing method information (command link table, col 10, ln 10-20), initializing

procedure (object command, col 10, ln 10-20), executing the method (the combination, col 10, ln 10-20).

As to claim 24, Ryu teaches information of object (read data, meta data, col 10, ln 10-20), a decriptor/ idetifier (object ID 1/ object ID 2, col 16, ln 17-40).

As to claim 25, Ryu teaches deleted- object (deleting exiting object parts, col 12, ln 54-65), the name of the object must be deleted when the object is deleted from the composite object/ the specified descriptor is deleted (deleting the attribute related to the information, col 10, ln 25-45).

As to the rejection of claim 29, see the rejection of claim 22.

As to the rejection of claim 30, see the rejection of claim 23.

As to the rejection of claim 31, see the rejection of claim 24.

As to the rejection of claim 32, see the rejection of claim 25.

As to the rejection of claim 36, see the rejection of claim 22.

5.   Claims **37, 38** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ryu et al (US Patent 5,572,733) in view of Wold et al (US Patent 5,386,568) and further in view of Marc H. Brown (Distributed Active Object).

As to claim 37, Ryu teaches a name (the name, col 11, ln 60-67), component object (the objects, col 11,ln 60-67), an object identifier (the object ID, col 11, ln 6067/col 16, ln 17-55), an entry table (data buffer, Fig 18), one registered relationship (a, b, c, d, e, Fig. 18), link table (collection buffer, Fig. 18).

Ryn does not teach Oblets. However, Brown teaches Oblets(page 1).

It would have been obvious to apply teaching of Brown to Ryu in order to makes it easy to write collaborative and distributed applications.

As to claim 38, see the rejection of claim 37.

Response to the argument

This is in response to the amendment filed 04/21/03. As to claim 1, Applicant

stated on page 18-20 " it does not appear the examiner has established how the cited

combination of Ryu and Wold disclose or suggest the specific relationship between the

composite object and the component object and among the data and structures of these

objects". This term " relationship between the composite object and the component

object" is not declared in the claim limitation. The Ryu's reference teaches the class

available and constant are linked or added to another classes in the table corresponding to

the new process request (col 6, ln 38-67). The term " registering a relationship " is not

clearly mentioned on the specification of invention.

Application stated on page 25 that " the multiple request within the same thread

does not necessarily imply the multiple objects are sharing a thread. Kavner' reference

teaches the processor of client and server have plurality applications which transfer

messages by using the shared thread. Thus, the references of Ryu and Kavner met the

claim limitations.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for response to this final action is set to expire

THREE MONTHS from the date of this action. In the event a first response is filed

within TWO MONTHS of the mailing date of this final action and the advisory action is

not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the

advisory action. In no event will the statutory period for response expire later than SIX

MONTHS from the date of this final action.

6.   *Conclusion*

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to LeChi Truong whose telephone number is (703) 305

5312. The examiner can normally be reached on 8 - 5.

Fax phone: AFTER_FINAL faxes must be signed and sent to: (703) 746-2738,

OFFICAL faxes must be signed and send to: (703) 746-7239, NON OFFICIAL faxes

should not be signed, please send to: (703) 746-7240

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is 703 305

9000.

LeChi Truong
June 26, 2003

JOHN FOLLANSBEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100